

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EPA NEW ENGLAND
1 CONGRESS STREET, SUITE 1100 (HBO)
BOSTON, MA 02114



SDMS DocID 295415

POLLUTION REPORT

I. HEADING

Date: September 23, 2008
Subject: POLREP 2 – FINAL POLREP, NTCRA
Site: Beede Waste Oil Superfund Site,
Plaistow, New Hampshire
From: Jim Brown, RPM, US EPA, New England Region
To: See Attached List
POLREP No.: 2, Final POLREP, NTCRA
Response Authority: CERCLA
NPL Status: NPL
CERCLIS ID No.: NHD018958140
Action Memorandum: September 30, 1998
Mobilization Date: November 17, 1999
Demobilization Date: August 20, 2008

II. BACKGROUND

The Beede Waste Oil Superfund Site (the "Site") is located at 11 Kelley Road in Plaistow, New Hampshire. The Site occupies approximately 40.6 acres and is comprised of two parcels. Parcel 1 (21.6 acres) has been the location of petroleum and waste oil storage/handling/recycling since the 1920's. Parcel 2 (19 acres) has been used largely for commercial sand and gravel operations. Access to Parcel 1 is restricted by a chain link fence which surrounds the former operations area, except for a portion of the boundary with Parcel 2. Access to Parcel 2 is restricted by a chain link fence along the eastern boundary and Kelley Brook to the north and west. The Site has frontage on Kelley Road and Old County Road. All access to the Site is from Kelley Road since access to Old County Road is restricted by Kelley Brook. Figures 1 depicts the Site and important features.

The abutting properties in the vicinity of the Site are primarily residential. Most of the Site is unpaved, except for a parking area and a vacant 10,000 square-foot operations building.

Commercial operations including recycling of used oil, and storage and distribution of virgin fuel oil reportedly started in 1926. Modern operations at the Site began in the 1950's with the installation of a 140,000 gallon underground storage tank (UST) and several above ground storage tanks (ASTs). Additional USTs and ASTs were added throughout the 60's, 70's and 80's. A one-acre unlined lagoon was observed during the mid to late 1960's. Nearly 100 ASTs were observed on-Site following closure of the facility in 1994. The ASTs were of various kinds, some were ordinary vertical tanks, some were USTs or even railroad tanker cars (without trucks),

all sitting directly on the ground (unlined) and used for waste oil storage. Most ASTs were connected by subsurface piping, reportedly for waste oil blending. A few ASTs were used for virgin fuel oil and gasoline storage. Over 800 drums were also observed in 1994. The tanks and drums had a combined storage capacity of about 3 million gallons. Seventeen large soil piles were also abandoned on-Site. Most of these soil piles reportedly originated from off-Site petroleum UST removals and were intended for use in an on-Site asphalt batching process which operated for a short time in the early 1990's.

Contamination on the Site originated from poor storage and handling of waste oil and other products as well as the unlined and uncovered storage of large contaminated soil piles. Elevated concentrations of polychlorinated biphenyls (PCBs) were first detected by the New Hampshire Department of Environmental Services (NHDES) in waste oil found in several ASTs following complaints of odors in 1979. Numerous notices and a court order to cease operations and perform investigation and remedial activities were issued from 1980 to 1992.

III. ACTIONS TO DATE

History of Removal Actions

Between July 1996 and August 1997, EPA and NHDES coordinated a time-critical removal action to remove all abandoned liquid waste from the ASTs and drums at the Site. NHDES completed a subsequent action to physically remove the tanks and drums from the Site. In addition, several large soil piles containing varying levels of contaminants were covered with tarpaulins and a fence was erected to keep out trespassers. NHDES minimized oil from seeping into nearby Kelley Brook by using booms and sorbent pads. These joint removal efforts eliminated immediate threats and stabilized the Site conditions. The time-critical removal action was closed out in October 1997 and the administrative record for it is available through EPA's Superfund Records Center.

The Site was listed on the National Priorities List (NPL) in December 1996.

On August 30, 1996, EPA prepared an Approval Memorandum to conduct an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate and compare alternatives to mitigate risks to human health and the environment posed by the presence of LNAPL at the Site. The EE/CA, dated June 1, 1998, compared two options and recommended that a vacuum-enhanced LNAPL recovery system be constructed to extract mobile LNAPL. As part of the EE/CA, EPA installed a passive LNAPL interceptor trench to evaluate its effectiveness in capturing floating oil product from the groundwater, and the EE/CA also recommended keeping and extending the trench to further prevent the migration of LNAPL to downgradient areas, specifically Kelley Brook.

An Action Memorandum, dated September 30, 1998, selected the above recommendations, authorized \$3.48 million for the NTCRA, and approved an exemption of the 12 month/\$2 million statutory limit for the NTCRA. The vacuum-enhanced LNAPL recovery system and the LNAPL interceptor trench extension were subsequently built and have operated since February 2000.

EPA and NHDES completed field investigations and finalized a Remedial Investigation (RI) report in February 2001. It concluded that an estimated 57.6 million gallon plume of contaminants is dispersed over an area of approximately 26 acres and extends off-site to the north-east, impacting 14 adjacent residential wells. In October 1996, NHDES had previously installed point-of-use treatment on the well-heads of three of these residential wells. The treatment systems continue to be maintained by NHDES to ensure safe potable water until completion of the remedy.

A Feasibility Study (FS) report, which evaluated several cleanup options, was completed in January 2002. In June 2002, EPA released a proposed cleanup plan to address soil and groundwater contamination. The public comment period for the proposed plan closed on August 18, 2002. A Record of Decision (ROD), which documents the final cleanup plan selected for the entire Site, was finalized on January 9, 2004.

General Enforcement Status

EPA issued general notices of liability to over 2,000 parties in June 2001. EPA has settled with over 1,200 parties, primarily in 4 separate *de minimis* settlements, each under an administrative order on consent ("AOC"). Those settlements netted over \$18 million for costs associated with the Site. After completing the 4th *de minimis* settlement, the EPA pursued settlement negotiations with the largest volume contributors to the Site, and on April 7, 2007, the Department of Justice lodged the Remedial Design/Remedial Action Consent Decree (RD/RA CD) with the United States District Court for the District of New Hampshire. The Consent Decree includes settlement terms with 101 Beede Potentially Responsible Parties (PRPs). Shortly after lodging, a group of major PRPs who signed the Consent Decree (hereinafter, "Performing Parties") commenced work associated with the \$48 million comprehensive Beede site cleanup plan selected in the 2004 ROD. The consent Decree was entered by the Court on July 22, 2008.

Status of On-going Non-Time Critical Removal Action

The vacuum-enhanced LNAPL extraction system recovered over 90,000 gallons of free product in the approximately five years that it actively operated (2000 – 2005). The EPA shut down operations of the active components of the vacuum-enhanced LNAPL recovery system in the Fall of 2005. The operations of the recovery system were discontinued primarily because it was no longer removing significant volumes of LNAPL. More details on the performance of the recovery system and the rationale for discontinuing operations can be found in POLREP 1 dated September 16, 2005.

The major LNAPL extraction system shutdown activities included: disconnecting fluid transfer lines between the extraction system and storage tanks; disconnecting and sealing system extraction wells; decontaminating and removing the water storage tank from the Site; disposing of all solid waste generated by the system shutdown or previous NTCRA operation activities; and disposing of liquid wastes generated during system shutdown and water storage tank decontamination. All wastes were disposed off site at appropriately permitted facilities.

Although EPA shut down active operations of the LNAPL extraction system in the Fall of 2005, the system and its components were left in place, and bi-weekly inspections and maintenance were performed so that the system could be restarted in the event that it was needed. Bi-weekly

maintenance included: starting the system and running it until it reached normal operation temperature; inspecting system components; and maintaining the equipment as needed. The EPA also maintained the soil stockpile covers and replaced some covers in the Spring 2008.

At the same time that the EPA decided to shut down active operation of the LNAPL extraction system in the Fall of 2005, the EPA also decided to extend the oil interceptor trench in an attempt to passively capture any residual mobile LNAPL that could migrate from the Site into the nearby wetlands. In January 2006, the oil interceptor trench which is located along the northern edge of the Site, immediately upgradient of the Kelley Brook wetlands, was extended 64 feet eastward (see Figure 2). Subsequently, the EPA regularly inspected the oil interceptor trench to determine whether oil removal was necessary, but, very little oil (only a sheen) had accumulated in the interceptor trench over the past three years and no oil was removed. In August 2008, periodic inspections of the interceptor trench stopped and routine inspections and maintenance activities ended.

In August 2008, the Performing Parties removed the network of horizontal piping used for the LNAPL extraction system. Government owned equipment remains on-site and will be removed in accordance with government policies. The interceptor trench currently remains in place but will be removed by the Performing Parties in the future as part of the comprehensive Beede Site cleanup plan

IV. PLANNED REMOVAL ACTIVITIES

There are no more planned EPA removal activities for the Site at this time. Routine maintenance and future investigations and cleanup activities at the Site are now the responsibility of the Performing Parties since the Remedial Design/Remedial Action Consent Decree was entered by the Court in July 2008.

IV. COST INFORMATION

The total extramural costs for the non-time critical removal action to date are as follows:

- EE/CA = \$658,000
- Design/Construction = \$1,392,507
- Operation (February 2000 thru September 2005) = \$2,101,249 (estimated)
- Routine Inspections and Maintenance (September 2005 thru September 2008) = \$300,000 (estimated)

POLREP DISTRIBUTION LIST

Date and POLREP No. **September 23, 2008, POLREP No. 2 – Final POLREP, NTCRA**
Site: **Beede Waste Oil Superfund Site**

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FIGURE 1



